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SAMSUNG ELECTRONICS CO., LTD

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**UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION**

SAMSUNG ELECTRONICS CO., LTD.,  
a Korean corporation.

Case No.

**Plaintiff,**

1

PANASONIC CORPORATION,  
a Japanese corporation; PANASONIC  
CORPORATION OF NORTH AMERICA,  
a Delaware corporation; and SD-3C LLC, a  
Delaware limited liability company.

### Defendants.

## COMPLAINT

**DEMAND FOR JURY TRIAL**

1 Plaintiff Samsung Electronics Co., Ltd. (“Samsung”), by its attorneys, brings this  
2 action for damages, a declaratory judgment and injunctive relief, against Defendants Panasonic  
3 Corporation, Panasonic Corporation of North America (collectively “Panasonic”) and SD-3C  
4 LLC (“SD-3C”) (together with Panasonic, “Defendants”). Samsung alleges as follows:

5 **INTRODUCTION**

6 1. In this action, Samsung seeks relief from the anticompetitive agreements  
7 that Panasonic and SD-3C have reached with SanDisk and Toshiba in connection with the  
8 development and licensing of the Secure Digital Memory Card (“SD Card”), a type of flash  
9 memory card that has become the dominant industry standard since its launch in 2000. The  
10 agreements in question constitute violations of federal antitrust and patent laws, as well as  
11 California’s Cartwright and Unfair Competition Laws.

12 2. Prior to the launch of the SD Card, the flash memory card industry was  
13 characterized by vigorous competition. Rapid innovation produced a profusion of competing  
14 flash memory card formats. The principal manufacturers—including Panasonic, SanDisk and  
15 Toshiba—made extensive use of open standard-setting organizations in an attempt to win  
16 industry-wide acceptance for their own formats. For example, SanDisk joined and agreed to  
17 abide by the rules of the MultimediaCard Association (“MMCA”), which developed a standard  
18 for the MultimediaCard (“MMC”) based on a format originally developed by SanDisk.

19 3. In August 1999, Panasonic reached an agreement with SanDisk and  
20 Toshiba (all three collectively, the “SD Group”) that fundamentally changed the nature of  
21 competition in the industry. These three leading competitors agreed to limit competition among  
22 themselves in order to develop the SD Card as a new industry standard over which they could  
23 exercise collective control.

24 4. The SD Group employed numerous anticompetitive methods to achieve  
25 their goals. They bypassed the open standard-setting process for the MMCA and entered into an  
26 agreement among themselves to devise a modification of the existing MMC specification to  
27 serve as the first version of the SD Card specification. At least one member of the SD Group  
28 subsequently took repeated steps, in violation of its obligations as a member of the MMCA, to

1 prevent the successful launch of MMC products that might offer effective competition to the SD  
2 Card.

3           5. Having excluded the other MMCA member companies from their  
4 deliberations, the SD Group manipulated the SD Card specification to ensure that it arbitrarily  
5 required the use of patent rights owned by SD Group members. To secure acceptance of this  
6 specification, without having to follow the existing rules of the MMCA, the SD Group members  
7 formed the SD Association, a new standard-setting body operating under rules devised by and  
8 favoring the interests of the SD Group. Then the SD Group formed SD-3C LLC to enforce  
9 against other industry participants a discriminatory licensing scheme that imposed  
10 supracompetitive royalties on any other company wishing to manufacture SD Cards, while  
11 holding back for separate licensing by each member of the SD Group (and a further royalty) the  
12 memory technology rights needed for SD Cards.

13           6. The conspiracy among the SD Group and SD-3C has significantly altered  
14 and restrained competition. The SD Card has become the dominant flash memory card format.  
15 The SD Group's three members have become the dominant manufacturers of SD Cards  
16 accounting for 65-70 percent or more of the U.S. market. The SD Group has imposed  
17 discriminatory royalty obligations on rival manufacturers that have impeded competition in the  
18 market for SD Cards and reduced innovation in the flash memory technology market. No  
19 significant new formats have been launched since the SD Card. Panasonic and Toshiba have  
20 withdrawn pre-existing formats of their own, further limiting competition to the SD Card.

21           7. The agreements between Panasonic, SD-3C and the other members of the  
22 SD Group violate Sections 1 and 2 of the Sherman Act. They violate Section 1 because they are  
23 agreements between competitors that suppress competition and that create anticompetitive  
24 effects that are not outweighed by countervailing procompetitive benefits. They violate Section  
25 2 of the Sherman Act because the agreements constitute a conspiracy to monopolize the market  
26 for SD Card technology. That conspiracy has resulted in the unlawful acquisition and  
27 maintenance by SD-3C of a monopoly in the market for SD Card technology—a further  
28 violation of Section 2. In addition, Defendants have engaged in patent misuse by demanding

royalties on the sale of unlicensed memory under the SD Card license and have violated both the Cartwright Act and Section 17200 of the California Business and Professions Code.

8. Samsung has been injured and continues to suffer injury as a result of Defendants' violations of federal and state law.

## THE PARTIES

9. Plaintiff Samsung Electronics Co., Ltd. is a corporation organized under the laws of the Republic of Korea with its principal place of business at 416 Maetan-dong, Youngtong-gu, Suwon, Kyunggi-Do, 443-742, Korea.

10. Defendant Panasonic Corporation is a Japanese corporation, with its headquarters at 1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, Japan. Prior to October 2008, Panasonic Corporation was known as Matsushita Electric Industrial Co., Ltd.

11. Defendant Panasonic Corporation of North America, a Delaware corporation, is, upon information and belief, a wholly owned subsidiary of Panasonic Corporation, with its principal place of business at One Panasonic Way, Seacucus, New Jersey 07094, and is doing business in this district.

12. Defendant SD-3C LLC is a Delaware limited liability company with its principal place of business at 180 Montgomery Street, Suite 1840, San Francisco, California 94104. On information and belief, SD-3C has conducted licensing activities through its agent, Miller, Kaplan, Arase & Co. LLP, at that address.

## **JURISDICTION AND VENUE**

13. This Court has subject matter jurisdiction over this action under 28 U.S.C. §§ 1331, 1337(a), and 1367, insofar as Samsung seeks declaratory relief addressing issues arising under federal patent and antitrust law and asserts claims of violations of the Sherman Act. The Court has jurisdiction under 28 U.S.C. § 1332, in that the matter in controversy is between a citizen of a foreign state and citizens of a state, and the amount in controversy, exclusive of interest and costs, exceeds \$75,000. The Court may grant declaratory relief in this action pursuant to 28 U.S.C. §§ 2201 and 2202.

14. A substantial part of the events or omissions giving rise to this Complaint

1 occurred in this District. Upon information and belief, SD-3C transacts business in this District,  
 2 both directly and through its agent, and is subject to personal jurisdiction in this District.  
 3 Furthermore, SD-3C has consented to venue in this District. As such, venue is proper in this  
 4 Court pursuant to 28 U.S.C. §§ 1391 and 1400 and 15 U.S.C. § 22.

5 **INTRA-DISTRICT ASSIGNMENT**

6 15. The SD Group established SD-3C with its principal place of business in  
 7 San Francisco County, where a substantial part of the events or omissions giving rise to this  
 8 action occurred. Pursuant to Local Rule 3-2(d), “all civil actions which arise in the count[y] of .  
 9 . . San Francisco . . . shall be assigned to the San Francisco Division or the Oakland Division.”  
 10 Therefore, assignment to the San Francisco Division of this Court is appropriate.

11 **FACTUAL ALLEGATIONS**

12 16. Since their initial development in the late 1980s, flash memory cards have  
 13 become a key ingredient in the modern information economy, facilitating the storage of  
 14 constantly increasing amounts of information on ever-smaller devices. Vigorous competition  
 15 between different technologies and flash card manufacturers during the 1990s helped drive rapid  
 16 product improvements and steadily declining prices. This complaint arises from the decision of  
 17 three leading producers of flash memory cards to cease competing with each other and to seek  
 18 market dominance jointly through agreements on future product specifications and royalties  
 19 charged to the industry that have given them a permanent cost advantage and have restricted  
 20 competition in technology and product markets. These efforts have harmed, and continue to  
 21 harm, both Samsung and competition more generally.

22 **A. Background on the Technologies and Products at Issue in this Case**

23 **1. Flash Memory**

24 17. Flash memory was developed in the early 1980s by Toshiba and is now  
 25 widely used in consumer electronics devices, either as embedded memory within devices or in  
 26 the form of flash memory cards that can be slotted into and can communicate with those  
 27 devices.

1           18. One of the distinctive features of flash memory is that it is non-volatile,  
2 meaning that it can retain data without a continuous power source, unlike the Dynamic Random  
3 Access Memory (“DRAM”) traditionally used in computer hard drives. Flash memory is also  
4 solid state, meaning that it contains no moving parts and is therefore shock-resistant. An  
5 additional advantage of flash memory is that it can be read and programmed faster than many  
6 other types of memory.

7           19. These qualities have helped flash memory become the dominant  
8 technology for storing data in numerous types of consumer electronic devices, including digital  
9 cameras, digital audio players, and cellular telephones. Flash memory is a critical component in  
10 such commercially successful products as the iPod and the iPhone. It is also increasingly used  
11 in solid state hard drives for personal computers.

12           20. The two main types of flash memory are NOR and NAND. In NOR flash  
13 memory, the memory cells are arranged in parallel. Because this architecture permits random  
14 access to data, NOR flash is well-suited for programming applications, such as code storage and  
15 execution. In NAND flash memory, the cells are arranged in series. While this architecture  
16 prevents random access to data, it allows for significantly faster write and erase operations and a  
17 higher storage density than NOR. These characteristics make NAND the preferred form of flash  
18 memory for use in data storage applications. Accordingly, the flash memory used in consumer  
19 electronic devices is almost exclusively NAND.

20           21. Panasonic, Toshiba and SanDisk each claim patent rights bearing on  
21 NAND flash technology. Each of them demands royalties from other manufacturers of NAND  
22 flash memory based on these rights.

23           **2. Flash Memory Cards**

24           22. A significant proportion of NAND flash memory reaches consumers  
25 already built into (or “embedded” in) digital devices. Approximately 40-50 percent of NAND  
26 flash memory output, however, is sold in the form of flash memory cards. Flash memory cards  
27 are portable data storage media that can be inserted directly into compatible slots on host  
28 devices such as laptop computers, digital cameras and mobile phones. Flash memory cards

1 typically combine a flash memory chip with a controller (a chip that manages read, write and  
2 erase instructions received from the host device), packaged together in a plastic casing. Because  
3 of its higher density, NAND flash memory is particularly well-suited for use in flash memory  
4 cards, and the majority of flash memory cards in use today incorporate NAND flash memory  
5 chips.

6 23. Flash memory chips are made in large, specialized manufacturing facilities  
7 (also known as fabs) by manufacturers that include Toshiba, SanDisk (through a joint venture  
8 with Toshiba) and Samsung. The chips are combined with other components to form flash  
9 memory cards in a separate manufacturing process, either by the memory manufacturer itself or  
10 by a smaller manufacturer or assembler to which the memory manufacturer sells its chips.  
11 Panasonic, Toshiba, SanDisk and Samsung all manufacture flash memory cards incorporating  
12 their own flash memory chips. Examples of smaller manufacturers and assemblers include A-  
13 Data, Apacer, Corsair Microsystems, Dane-Elec, Kingston, PNY, PQI, Transcend, TSR, Buffalo  
14 and Phison Electronics.

15 24. A given flash memory card can only be used in host devices that have a  
16 compatible slot corresponding to that card's "form factor" (the size and shape of the card) and  
17 appropriate "driver" software (also called host interface software) to allow the host device to  
18 communicate with the memory card. Without the appropriate driver software, an otherwise  
19 physically compatible card (i.e., a card that physically fits into a slot in the host device) may not  
20 work properly in that device.

21 **B. Competition in the Flash Memory Card Industry in the 1990s**

22 25. The development of flash memory cards since they first appeared in the  
23 late 1980s has been conditioned by two factors. First, flash memory card manufacturers have  
24 had to innovate constantly to achieve the smaller form factors, faster processing times, and  
25 increased data storage capacities required by design improvements in host devices (for example,  
26 the development of smaller, higher resolution digital cameras). Second, because consumers  
27 value the convenience of being able to use the same flash memory card format in different host  
28 devices, flash memory card manufacturers have an incentive to promote broad acceptance of

1 their own formats. During the 1990s, these two factors fostered vigorous technological  
2 competition among flash memory card manufacturers, reflected in the release of numerous  
3 competing card formats, accompanied by efforts by individual manufacturers to promote  
4 industry-wide adoption of their own formats as open standards.

5       26. The first flash memory cards were generally proprietary designs, such that  
6 each one worked only with that manufacturer's products. By the late 1980s, the industry  
7 recognized that in order to advance the acceptance and use of flash memory cards it was  
8 necessary to standardize the flash card formats. Accordingly, in 1989, 25 vendors joined  
9 together to form a non-profit, open standards organization called PCMCIA (Personal Computer  
10 Memory Card International Association) to develop a universal memory card format for laptop  
11 computers.

12       27. The PCMCIA developed a set of protocols describing the form factor and  
13 operating characteristics of a NOR-based flash memory card format called the PC Card. The  
14 first PC Card specification was published in 1990. The PC Card was an open standard. As an  
15 open standard, no company controlled the PC Card format and multiple vendors competed to  
16 supply the market with interoperable memory cards that complied with the format.

17       28. During the mid-1990s, the major flash memory card manufacturers  
18 competed to develop smaller memory card formats and to have those formats adopted as open  
19 standards by other manufacturers. Panasonic, Toshiba and SanDisk were prominent horizontal  
20 competitors at this time, each developing and promoting new formats of their own.

21       29. In 1994, SanDisk developed the CompactFlash format, a NOR-based flash  
22 memory card with a smaller form factor than the PC Card but that could be used in a PC Card  
23 slot by means of an adapter. To promote the card as a standard, SanDisk agreed to transfer its  
24 Compact Flash trademark and technical specifications to the CompactFlash Association, an  
25 open standard-setting body, which made the specifications available under a royalty-free license  
26 to other third-party manufacturers that committed to develop, manufacture and supply  
27 CompactFlash products.

28       30. In 1995, Toshiba launched the SmartMedia format, a small NAND-based

1 flash memory card format with no on-board controller, which it proposed as a standard. The  
2 SmartMedia Format was promoted as an open, royalty-free standard by the SSFDC (Solid State  
3 Floppy Disk Card) Forum.

4 31. In 1997, Panasonic announced its own NAND-based flash memory card,  
5 the Mega Storage Device, previously known in Japan as the SmallPC Card, to target digital  
6 cameras, personal digital assistants, and other portable devices.

7 32. Also in 1997, Siemens and SanDisk jointly developed and introduced the  
8 MultiMediaCard (“MMC Card”) specification, a high-density NAND-based flash memory card  
9 format, with a form factor about the size of a postage stamp. On information and belief, the  
10 development of the MMC Card was encouraged by Nokia, which wanted a smaller form factor  
11 memory card for use in cellular telephones. On information and belief, Nokia wanted the MMC  
12 Card to be an open standard.

13 33. Accordingly, in 1998, Siemens, SanDisk and 12 other companies  
14 announced the establishment of the MultiMediaCard Association (“MMCA”) “to make the  
15 MultiMediaCard a broadly supported new industry standard.” The MMCA had two types of  
16 members, executive and affiliate. At its inception, executive members were asked to pay a  
17 modest fee of \$5,000 to join—and to have full voting rights—while affiliate members were  
18 asked to pay only \$2,500. All MMCA members were entitled to access and use the  
19 MultiMediaCard specification to develop, manufacture and supply MultiMediaCard products on  
20 a royalty-free basis. All executive members were entitled to participate on an equal basis in the  
21 development of specifications and standards. Samsung joined the MMCA in 2002 and began  
22 manufacturing MMC cards at that time.

23 34. SanDisk’s 1998 SEC Annual Report commented on the “intense  
24 competition, rapid technological change [and] evolving industry standards” that characterized  
25 the flash memory card market at that time. The report identified both Toshiba and Panasonic as  
26 horizontal competitors in the development of flash memory cards and flash memory card  
27 technology, observing that:

28 “Competing products promoting industry standards that are

different from SanDisk's have been introduced, including Intel's Miniature Card, Toshiba's Smart Media (Solid-State Floppy Disk Card), Sony Corporation's Memory Stick, and Panasonic's recently introduced Mega Storage cards . . . .”

35. The annual report specifically noted that "our MultiMediaCard products are expected to face stiff competition from Toshiba's SmartMedia flash cards" together with Sony's Memory Stick.

36. By the time SanDisk released its next annual report, covering the 1999 calendar year, the company had embarked on a course of action in concert with Panasonic and Toshiba that was to alter fundamentally the nature of competition in the flash memory card industry.

**C. Panasonic, SanDisk and Toshiba Agreed to Limit Competition and to Achieve Dominance by Anticompetitive Means.**

37. Prior to 1999, Panasonic, SanDisk and Toshiba were major horizontal competitors in the flash memory card technology and product markets. Each of these companies had supported open standard-setting as a means of gaining a competitive edge for their formats. Prior to 1999, open standard-setting was the norm in the flash memory card industry for manufacturers that wished to promote broader adoption of a particular format among different host manufacturers. While some single-company proprietary formats, such as Sony's Memory Stick, had enjoyed limited commercial success, competitor collaborations to promote a jointly-owned proprietary standard were highly unusual.

38. On August 25, 1999, Panasonic revealed that it was working with SanDisk and Toshiba pursuant to an agreement that marked a radical departure from the competitive norms underpinning the development of the industry over the previous decade. Under this agreement, the three companies agreed to develop a modified version of the MMC Card in a closed process from which other industry participants were excluded. On information and belief, the aim of the three companies in subverting the open standard setting work of the MMCA was to establish a new dominant standard under their joint control. The SD Group used its control of the new format to establish a regime for the SD Card that discouraged the

1 emergence of new competing technologies and that insulated Panasonic, SanDisk and Toshiba  
2 from competition by imposing an unreasonable and discriminatory royalty on other industry  
3 participants..

4 39. As described in SanDisk's 1999 SEC Annual Report, the agreement  
5 announced in August 1999 was:

6 "[A] memorandum of understanding under which we, Matsushita  
7 and Toshiba will jointly develop and promote a next generation  
8 flash memory card called the Secure Digital Memory Card. The  
9 Secure Digital Memory Card is an enhanced version of our  
MultiMediaCard that will incorporate advanced security and  
copyright protection features . . . ."

10 40. As the same document indicated, Panasonic, SanDisk and Toshiba—which  
11 now referred to themselves collectively as the “SD Group” in licensing and other documents  
12 related to Secure Digital Memory Cards—were not uniquely qualified to bring this additional  
13 functionality to the marketplace. The annual report observed that “Hitachi, Infineon, Sanyo and  
14 Fujitsu have proposed their Secure MultiMediaCard which provides the copy protection  
15 function that is included on our Secure Digital Memory Card.”

16 41. SanDisk was a founding member of the MMCA, an open standard-setting  
17 organization that had as its mission “to encourage all interested members of industry to join in  
18 the development and marketing of MultiMediaCard-based technologies.” As such, the MMCA  
19 was the natural forum for any development work on an enhanced version of the  
20 MultiMediaCard. On information and belief, there was nothing about the additional  
21 functionality that the SD Group incorporated into the SD Card that would have prevented the  
22 MMCA from achieving the same result under its open standard-setting rules. The combination  
23 of Panasonic, SanDisk and Toshiba was not necessary to achieve the modest technical advance  
24 represented by the SD Card.

25 42. On information and belief, Panasonic encouraged SanDisk to join with it  
26 and Toshiba in developing the SD Card outside of the MMCA structure. In addition to being a  
27 significant competitor of SanDisk and Toshiba in the flash memory card market, Panasonic was  
28 (like Toshiba) also a major manufacturer of host devices and was therefore well-placed to push

1 for adoption of the new format by the consumer electronics industry. The SD Group induced  
2 other manufacturers of host devices to adopt the SD Card format by offering them royalty-free  
3 licenses to incorporate SD Card functionality into their products (in contrast to the  
4 supracompetitive royalties charged to SD Card manufacturers, as described below) and by  
5 promising to make SD Cards backwardly compatible with the MMC format.

6 43. By combining their respective market weights, Panasonic, SanDisk and  
7 Toshiba could thus achieve critical mass for the new format under rules of their own choosing,  
8 without having to resort to open standard-setting. As an official of SanDisk, then the largest  
9 manufacturer of flash memory cards in the world stated at the time: "The combination of these  
10 three firms gives strength. That's why they came to SanDisk."

11 44. If Panasonic, SanDisk and Toshiba had chosen to proceed within the  
12 MMCA, their standard-setting activity would have been subject to the MMCA Policies and  
13 Procedures (the "MMCA Policies"). Under the MMCA Policies, the SD Group would have  
14 been required to circulate to other members a request for approval to proceed with a change to  
15 the MMCA Standard and the change would then have been considered and approved by the  
16 relevant technical committee and subsequently the MMCA Board of Directors.

17 45. In addition, the SD Group would have been subject to the MMCA's  
18 disclosure and licensing policy on intellectual property. That policy would have required  
19 disclosure to the group of any patent rights covered by the SD Group's proposal:

20 "When considering whether proprietary technology should be  
21 included, the Association balances the benefits of such  
22 technology with the burden of compliance with licensing  
23 requirements. As such, it is essential to the Association's  
24 success that it be fully informed of the existence of proprietary  
technology in any proposal for inclusion in the specification,  
at the first showing of that proposal in an Association meeting.

25 Any party submitting a proposal for inclusion in the  
26 specification will be required to disclose, at the time of  
27 submittal, all known proprietary technology included in the  
28 submission. . . . The Association expects that the proposal  
sponsor will use reasonable diligence to determine if  
proprietary technology is included in the proposal. Failure to

1 use reasonable diligence or make this disclosure is grounds for  
 2 expulsion from the Association.”

3       46. Such disclosure would have allowed the MMCA members to assess the  
 4 potential licensing costs associated with the new proposal, secure non-discriminatory licensing  
 5 commitments, and take into account their policy preference for technologies that can be licensed  
 6 royalty free, according to which:

7       “[T]he Association will only include a member company’s  
 8 proprietary technology in it’s [sic] specification if the owner of  
 9 that technology agrees to reasonable and nondiscriminatory  
 licensing terms set forth below.”

10       47. Rather than work within these constraints and submit the development of  
 11 the SD Card to the MMCA, however, Panasonic, SanDisk and Toshiba elected to form a new  
 12 group. Freed from the MMCA’s even-handed rules and patent disclosure and licensing policies,  
 13 the SD Group has designed and (with SD-3C) enforced a regime for the SD Card that restrains  
 14 competition among flash memory card technologies and in the sale of flash memory card  
 15 products, imposes discriminatory licensing royalties, and has resulted in the unlawful  
 16 monopolization by SD-3C of the market for SD card technology.

17       **D. The Anticompetitive Nature of the SD Card Regime**

18       48. By a series of agreements that remain in force today, the SD Group and  
 19 SD-3C have created and maintain a regime for the SD Card that improperly favors the interests  
 20 of Panasonic, SanDisk and Toshiba, while imposing unreasonable burdens on other industry  
 21 participants. Among other things, the SD Group: (1) has manipulated the SD Card specification  
 22 to ensure that it can only be implemented by practicing patent rights owned by SD Group  
 23 members; (2) dictates rules for the SD Association that unfairly favor the interests of the SD  
 24 Group over those of other members; (3) with SD-3C, imposes a discriminatory licensing scheme  
 25 on other industry participants that gives SD Group members a significant and permanent cost  
 26 advantage over their competitors in the manufacture of SD Cards; and (4) has eliminated or  
 27 suppressed the emergence of other competing formats.

28       49. The agreement among the SD Group to create the SD Card has not

1 generated efficiencies sufficient to save it from condemnation under the antitrust laws. If the  
2 SD Group had allowed the MMCA to play the role for which it was created, the MMCA could  
3 have developed a flash memory card with the same characteristics as the SD Card and would  
4 have done so under open standard-setting rules that promote rather than restrain competition.  
5 Even if the agreement to create the SD Card was found to be justified by procompetitive  
6 benefits, however, numerous features of the standard-setting and licensing regime established by  
7 the SD Group and SD-3C would nonetheless violate the antitrust laws as restrictions on  
8 competition that are not necessary to achieve a legitimate procompetitive purpose.

9 50. Defendants' ongoing anticompetitive conduct has injured and continues to  
10 injure both Samsung and competition generally.

11 **1. The SD Group's Manipulation of the SD Card Specification**

12 51. Panasonic, SanDisk and Toshiba issued the first version of the SD Card  
13 specification (the "Specification") in March 2000.

14 52. The SD Group's approach to the Specification represented a radical  
15 departure from the previous practice in the flash memory card industry, reflected by such open  
16 standards organizations as the CompactFlash Association and MMCA. During the 1990s,  
17 SanDisk and other manufacturers had encouraged industry-wide adoption of formats they had  
18 already developed by allowing competitors to implement the corresponding specification on a  
19 royalty-free basis. The August 1999 agreement among Panasonic, SanDisk and Toshiba, by  
20 contrast, related to future arbitrary amendments to the existing MMC specification that the three  
21 companies subsequently would share only with memory card manufacturers that promised to  
22 pay a hefty royalty.

23 53. By choosing to agree among themselves on the Specification without  
24 inviting input from or making disclosure to other parties, the SD Group members ignored  
25 guidance addressed to, among others, Panasonic and Toshiba by the U.S. Department of Justice  
26 ("the DOJ") in a business review letter of June 10, 1999 related to DVD licensing practices.  
27 That letter described the potential anticompetitive nature of the inclusion in patent pools of non-  
28 essential patents. In view of the economic incentive that collaborating licensors have "to

1 combine in the pool their competing . . . patents and to foreclose others' competing patents."  
2 the DOJ stressed the importance of engaging a genuinely independent expert "to undertake a  
3 disinterested review of the 'essentiality' of the patent rights put forward." The DOJ's letter also  
4 warned that inclusion in a pool of one of several competing non-essential patents could  
5 "unreasonably foreclose the non-included competing patents from use by manufacturers."

6 54. By excluding other companies from their deliberations, and by failing to  
7 engage an independent expert, the SD Group was able to craft a Specification that, to this day,  
8 favors their own intellectual property rights. The SD Group did this by drafting the  
9 Specification to mandate particular technological solutions for certain new features that could  
10 have been left to the discretion of the manufacturer without affecting the core functionality of  
11 the card. Members of the SD Group then filed patent applications to cover the mandated  
12 solutions.

13 55. For example, SD-3C asserts that the Specification cannot be implemented  
14 without infringing two Panasonic patents covering a mechanical write protect switch that  
15 prevents consumers from accidentally overwriting the card and destroying data, images or  
16 audio. Those patents derive from applications first filed by Panasonic on August 6 and 24,  
17 1999—immediately before the SD Group's first public announcement on August 25, 1999 that  
18 it was collaborating on the creation of an SD Card. There was no sound reason to require the  
19 practice of Panasonic's technology in this way. The SD Group could have written the  
20 Specification so as to allow mechanical write protection to be implemented by a variety of  
21 means.

22 56. On information and belief, many SD Cards available for purchase in the  
23 United States do not operate in conformity with aspects of the Specification covered by the SD  
24 Group's purported essential patents and yet function satisfactorily in SD host devices.  
25 Similarly, SD Cards purchased in the United States can be made to function satisfactorily even  
26 when modified to operate outside parameters defined in the Specification and without practicing  
27 SD Group patents that are purportedly essential for implementing the Specification. The fact  
28 that SD Group patents described by SD-3C as essential for the implementation of the

1 Specification are not needed to create an SD Card that functions satisfactorily is further  
2 evidence that the Specification has been manipulated by the SD Group to serve the interests of  
3 Panasonic, SanDisk and Toshiba.

4 57. As a result of the arbitrary and self-interested way in which Panasonic and  
5 the other SD Group members have created a Specification that requires the practice of their own  
6 patents to implement non-essential features, alternative technologies for implementing such  
7 features in a more cost-effective manner have been foreclosed. By writing a Specification that  
8 artificially rendered their own patents essential, the SD Group also created the basis for a  
9 licensing scheme that effectively insulated SD Group members from competition.

10 **2. The Unequal Rules Imposed by the SD Group on the SD Association**

11 58. The SD Group announced the establishment of the SD Association  
12 (“SDA”) on January 6, 2000, at a joint press conference at the Consumer Electronics Show in  
13 Las Vegas. On information and belief, the SD Group required, as a condition of membership in  
14 the SDA, that companies agree to observe association rules designed by the SD Group members  
15 to entrench their own privileged position within the organization.

16 59. For example, the Intellectual Property Policy (the “IP Policy”) developed  
17 by the SD Group for the SDA includes a disclosure requirement that, unlike the MMCA policy,  
18 effectively permits the SD Group to conceal the specific patent rights owned by SD Group  
19 members that it claims are essential for implementation of the original Specification. Thus, with  
20 respect to future recommendations to amend the Specification, the IP Policy requires members  
21 of the SDA to make highly specific disclosures—including patent numbers and the existence of  
22 pending applications—of any rights owned by them that would be needed to implement the  
23 proposed Specification. Under the IP Policy, however, SD Group members were not required to  
24 make any correspondingly detailed disclosure of rights owned by them and already embedded in  
25 the initial versions of the Specification. Instead, the IP Policy includes a vague statement  
26 purporting to provide an after-the-fact “notice” that the Specification “contain[s] intellectual  
27 property” held by the SD Group members and that such notice “shall be a sufficient disclosure.”

28 60. On information and belief, the SD Group has relied on this provision of the

1 IP Policy to avoid disclosing the specific patents owned by Panasonic, SanDisk and Toshiba that  
 2 it contends are essential for implementation of the Specification. To date, SD-3C has disclosed  
 3 on its website only 11 patents owned by SD Group members that “are necessarily and  
 4 unavoidably infringed by a product that implements the secure digital technology in compliance  
 5 with the SD Group Specifications.” According to SD-3C, “[t]he list is for information purposes  
 6 only, it is offered by way of example and may not be exhaustive.” Panasonic has asserted in  
 7 discussions with Samsung that it believes it owns a further 29 patents that are essential for  
 8 implementation of the Specification. Panasonic has not, however, disclosed those patents to the  
 9 SDA membership.

10       61. In a business review letter of November 12, 2002 concerning 3G wireless  
 11 communications technology, the DOJ indicated that the pooling of patents among competitors  
 12 might be justified where there was “the potential for efficiencies with respect to the generation  
 13 and dissemination of information about essential . . . patents, and the identification and  
 14 evaluation of which patents are actually essential” to the technology in question. The agreement  
 15 among Panasonic, SanDisk and Toshiba to combine their SD Card patents cannot be justified on  
 16 this ground because the SD Group has made affirmative efforts to bypass the prior MMCA rules  
 17 and use the creation of the SDA to avoid full disclosure of patents claimed by them to be  
 18 essential to implementation of the Specification. By creating doubt among other industry  
 19 participants as to the actual scope of their patents bearing on SD Cards, the SD Group’s non-  
 20 disclosure policy discourages third party innovation in SD Card technologies and thereby harms  
 21 competition.

22       62. Even if the creation of the SD patent pool could be justified on the basis of  
 23 its potential efficiencies, the discriminatory standard-setting rules imposed on the SDA by the  
 24 SD Group are not necessary to achieve those efficiencies.

25           **3. The SD Group’s and SD-3C’s Anticompetitive Licensing Scheme**

26       63. The SD Group and SD-3C require companies that wish to manufacture SD  
 27 Cards to enter into an SD Memory Card License Agreement (the “SD Card License”), which  
 28 grants licensees rights to the purportedly essential patent claims, the Specification, and the SD

1 logo and trademark. In contrast to the royalty-free terms on which rights to CompactFlash, the  
 2 MMC Card and other formats had previously been offered, the SD Card License requires  
 3 licensees to pay a 6 percent royalty on their net sales of SD Cards. On information and belief,  
 4 Panasonic, SanDisk and Toshiba have agreed to license their purportedly essential SD Card  
 5 technology exclusively through the SD Card License.

6 64. In parallel with their agreement to license their SD Card patents  
 7 exclusively through SD-3C and at a single price, the members of the SD Group have entered  
 8 into cross-licensing arrangements that allow them to enjoy a permanent cost advantage over  
 9 competing manufacturers of SD Cards. In its 1999 annual report, SanDisk disclosed:

10 “While other flash card manufacturers will be required to pay the  
 11 SD Association license fees and royalties which will be shared  
 12 between Matsushita, Toshiba and SanDisk, there will be no  
 13 royalties or license fees payable among the three companies for  
 14 their respective sales of the Secure Digital Memory Card.”

15 Accordingly, the effect of the SD Card License is to raise rivals' costs of manufacturing SD  
 16 Cards relative to the costs incurred by SD Group members.

17 65. The SD Card License also includes a discriminatory grantback provision  
 18 that has the effect of entrenching the SD Group's control over SD Card technology. Article 2.4  
 19 of the SD Card License requires licensees to grant to each member of the SD Group:

20 “under the Essential Patent Claims Licensable by Licensee, a  
 21 non-exclusive, non-transferable, royalty-free license to and  
 22 release from any and all claims of infringement, on a worldwide  
 23 basis, to make, design, have made, use, offer to sell, sell, import,  
 24 export or otherwise dispose of SD Memory Cards . . .”

25 The requirement that licensees give SD Group members royalty-free access to any new essential  
 26 technology they might develop contrasts with the 6 percent royalty demanded by SD Group  
 27 members for their own essential patent claims. This unequal provision eliminates any financial  
 28 incentive other manufacturers might have to develop new SD Card technologies and thereby to  
 challenge the control exercised over those technologies by the SD Group.

66. The grantback provision of the SD Card License fails to protect against the

1 threat of anticompetitive harm associated with such provisions. In its 1999 business review  
 2 letter related to DVD licensing practices, the DOJ recognized the potential for grantback  
 3 provisions to result in “significant discouragement of research and development.” The letter  
 4 indicated that this potential can be alleviated by arrangements that ensure that licensees subject  
 5 to a grantback provision benefit from introducing new essential patents into the pool. Because  
 6 the SD Card License grantback provision lacks this or any other redeeming feature, its potential  
 7 to harm competition among technologies is unmitigated.

8       67. Although the SD Card License requires licensees to pay a 6 percent  
 9 royalty, the license by its terms does not provide licensees with all the rights needed to  
 10 manufacture an SD Card. Article 2.3 of the SD Card License provides:

11       “IT IS EXPRESSLY UNDERSTOOD THAT THE RIGHTS AND LICENSES  
 12 GRANTED PURSUANT TO THIS AGREEMENT DO NOT EXTEND TO ANY  
 13 SEMICONDUCTOR MEMORY TECHNOLOGY OR SEMICONDUCTOR  
 14 PROCESS/PACKAGING TECHNOLOGY.”

15       68. On information and belief, Panasonic, SanDisk and Toshiba claim  
 16 substantially all of the flash memory technology rights needed to manufacture an SD Card.  
 17 Instead of including these rights within the scope of the SD Card License, however, these  
 18 companies have agreed to hold back their flash memory rights from the SD Card License. Each  
 19 of Panasonic, SanDisk and Toshiba requires competing manufacturers of SD Cards to license  
 20 their respective flash memory rights in separate bilateral license agreements, thereby extracting  
 21 additional royalties that increase the cost advantage enjoyed by SD Group members in the  
 22 manufacture of SD Cards.

23       69. Even if the joint licensing of the SD Group’s patents could be justified on  
 24 the basis of its potential efficiencies, the supracompetitive royalties, discriminatory grantback  
 25 and other anticompetitive features of the SD Card License are not necessary to achieve those  
 26 efficiencies.

27       70. Although the SD Card License purports to exclude flash memory rights  
 28 from its scope, the license specifies that the 6 percent royalty is payable on net sales of SD  
 29 Cards, rather than on a per-card basis. The price of an SD Card, and therefore the amount of

1 royalty owed, is generally proportional to the amount of flash memory contained within it. For  
2 example, the advertised price of SanDisk SD/SDHC Cards at [www.flash-memory-store.com](http://www.flash-memory-store.com) on  
3 July 15, 2010 was \$9.95 for 2 GB, \$14.95 for 4 GB, \$21.95 for 8 GB, \$34.95 for 16 GB and  
4 \$73.95 for 32 GB. The cost of non-memory components in SD Cards does not vary  
5 significantly, regardless of the memory capacity of the card in which they are incorporated. By  
6 requiring royalties to be calculated based on net sales, the SD Card License therefore effectively  
7 requires that licensees pay a royalty with respect to the quantity of memory included in an SD  
8 Card, even though that memory is expressly excluded from the scope of the license grant.

9       71. In early 2003, Samsung sought to obtain an SD Memory Card License at  
10 the request of a customer that wished to sell SD Cards assembled by Samsung using Samsung  
11 memory components. At the direction of an official from Toshiba, Samsung approached  
12 Michael Quackenbush in the San Ramon office of Lindquist CPA, who was acting as SD-3C's  
13 licensing agent at the time, to secure a license to produce SD Memory Cards. Mr. Quackenbush  
14 refused to engage in any negotiations of license terms with Samsung. For example, Samsung  
15 asked early in this discussion that Mr. Quackenbush send a Word version of the SD Memory  
16 Card License proposed by the SD Group, to facilitate the exchange of counter-proposals. After  
17 initially indicating his assent to this proposition, Mr. Quackenbush subsequently communicated  
18 to Samsung that: "I have been asked to not provide the license agreement in a word file to any  
19 company. The SD-3C managers are concerned about anyone making changes to the  
20 agreement."

21       72. The SD Memory Card License therefore was offered to Samsung without  
22 any opportunity for modification or negotiation of its terms. On September 24, 2003, Samsung  
23 signed the agreement in the form offered by SD-3C, without being given any ability to modify  
24 or negotiate the contract. The agreement was subsequently signed by officials of Panasonic,  
25 SanDisk and Toshiba on behalf of SD-3C.

26       73. Samsung began manufacturing SD Memory Cards in its own right in early  
27 2006. By mid-2009, Samsung had paid more than \$80 million to SD-3C in royalties pursuant to  
28 its SD Memory Card License.

#### 4. Elimination and Suppression of Competing Formats

74. In addition to exercising collective control over the SD Card format, the SD Group has sought to restrain competition among flash memory cards more broadly by eliminating existing formats that compete with the SD Card and by suppressing the emergence of new competing formats.

75. SD Group members have withdrawn their own pre-existing formats from the market. On information and belief, Toshiba discontinued sales of its SmartMedia card in 2002. On information and belief, Panasonic ceased marketing its Mega Storage format in or around 2002.

76. On multiple occasions, one or more members of the SD Group, acting in furtherance of the SD Group's unlawful purposes, have participated in anticompetitive conduct designed to impede the development of MMC formats that would have competed with SD Cards. Most recently, in March 2006, SanDisk intervened at the last minute in negotiations at the European Telecommunications Standards Institute (ETSI), disclosing MMC-related patent rights in order to prevent the adoption by ETSI of an MMC-based standard for high-speed SIM (Subscriber Identity Module) cards for use in mobile phones. SanDisk informed ETSI that it would not provide the commitment to license other manufacturers on "fair reasonable and non-discriminatory terms" that ETSI's rules required in order to move forward with an MMC-based SIM card standard. On information and belief, SanDisk had failed to disclose these same patents to the MMCA, while it was a member of the board of directors and/or an executive member of that organization. By contrast, SanDisk told ETSI that it would agree to license its patents on fair, reasonable and non-discriminatory terms to other vendors for a SIM card standard based on USB, rather than MMC, technology. As a result of SanDisk's intervention, ETSI's decision on high-speed SIM cards was delayed. After SanDisk had made an unsuccessful attempt to persuade ETSI to adopt an SD Card-based standard, ETSI eventually opted for the USB option notwithstanding the fact that, according to contemporary reports, "handsets that can run MMC-based SIMs could reach the market as much as 18 months before comparable USB-based handsets."

1           77. On information and belief, other members of the SD Group were informed  
2 of and approved SanDisk's anticompetitive actions in ETSI.

3           **E. The Effect of Defendants' Conduct on Competition and on Plaintiff's  
4 Business**

5           78. The conspiracy between Defendants and the other members of the SD  
6 Group has achieved its anticompetitive objectives. The efforts of SD Group members to  
7 leverage their combined weight in the marketplace, together with the steps they have taken to  
8 impede the emergence of competing MMC formats, have succeeded in making the SD Card and  
9 derivative form factors such as Mini SD and Micro SD the dominant format in the flash memory  
10 card market. On information and belief, SD Cards (including Mini SD and Micros SD)  
11 accounted for more than 80 percent of all flash memory cards sold worldwide in 2009.

12           79. The conspiracy between Defendants and the other members of the SD  
13 Group has also succeeded in reducing competition between different flash memory card  
14 formats. In contrast to the profusion of new formats entering the market during the 1990s, no  
15 significant alternative to the SD Card format has been introduced since the SD Card was  
16 launched in 2000. As described above, SD Group members have further reduced competition in  
17 flash memory cards by withdrawing their own pre-existing formats from the market and by  
18 actively impeding the emergence of competing new formats sponsored by the MMCA.  
19 Consumers have been harmed by the resulting diminution in choice between flash memory card  
20 formats.

21           80. The individual members of the SD Group have benefited handsomely from  
22 their decision to abandon open standard-setting and to establish instead a Specification and  
23 industry association that they could dominate. On information and belief, this anticompetitive  
24 conduct has allowed the SD Group to extract hundreds of millions of dollars in royalty flows  
25 each year from numerous competing flash card manufacturers. This royalty burden has  
26 handicapped the ability of rival manufacturers to compete with SD Group members (who pay no  
27 royalties) in the sale of SD Cards. As a result, Panasonic, SanDisk and Toshiba have been able  
28 collectively to dominate the SD Card product market, together accounting for approximately 65-

1 70 percent of the U.S. retail market (including cards manufactured by an SD Group member and  
2 sold by a third party under its own brand name). The SD Group's collective share of the total  
3 U.S. market for SD Cards, including both retail and sales to original equipment manufacturers  
4 such as Motorola, likely is greater than 70 percent. Consumers have paid higher prices for SD  
5 Cards than would have been the case if SD Group members had been required to compete on an  
6 even playing field with other manufacturers.

7 81. Samsung has been harmed by the conduct of the SD Group and SD-3C. As  
8 a manufacturer of SD Cards, Samsung has been required to execute the SD Card License  
9 without any opportunity to renegotiate its discriminatory terms. Pursuant to the license,  
10 Samsung has been required to pay supracompetitive royalties to SD-3C, a significant proportion  
11 of which relate to purportedly unlicensed memory contained in SD Cards sold by Samsung.  
12 Moreover, the artificial exclusion of memory technology rights from the scope of the SD  
13 License has forced Samsung to enter into additional royalty-bearing license agreements  
14 covering such memory rights with each member of the SD Group, effectively amounting to a  
15 double royalty on SD Cards.

16 82. The supracompetitive royalties imposed by the SD Group have impaired  
17 the ability of both Samsung and its customers for NAND flash memory chips to compete in the  
18 flash memory card market. As a result, Samsung has sold fewer flash memory cards than would  
19 have been the case absent defendants' anticompetitive conduct and has sold fewer NAND flash  
20 memory chips for incorporation into flash memory cards made by smaller manufacturers and  
21 assemblers.

## 22 RELEVANT MARKETS

23 83. There is a relevant antitrust market in the technology needed for or related  
24 to flash memory cards, consisting of technology developed for this end-use or that might be  
25 applied toward this end-use (the "Flash Memory Card Technology market").

26 84. There is a separate relevant antitrust market in the sale of finished flash  
27 memory cards to third parties (the "Flash Memory Card market"). Such finished flash memory  
28 cards are broadly used in interstate commerce for a range of applications, including particularly

1 for data storage in digital cameras and other digital devices.

2 85. There is a separate relevant antitrust market in the technology needed for or  
 3 related to SD Cards, consisting of technology developed for this end-use or that might be  
 4 applied toward this end-use (the “SD Card Technology market”).

5 86. There is a separate relevant antitrust market in the sale of finished SD  
 6 Cards to third parties (the “SD Card market”). Such finished SD Cards are broadly used in  
 7 interstate commerce for many of the same applications as flash memory cards generally. SD  
 8 Cards are, however, the only type of flash memory card that can be used in the SD slots  
 9 included on many digital devices.

10 87. In each case, the relevant geographic market is the United States and its  
 11 territories, or, alternatively, the world.

12 **CAUSES OF ACTION**

13 **CLAIM I**  
 14 **Agreement in Restraint of Trade in Violation of Section 1 of the Sherman  
       Act against Panasonic and SD-3C LLC  
       (in the Flash Memory Card Technology Market)**  
 15

16 88. Plaintiff hereby incorporates by reference Paragraphs 1 through 87 of this  
 17 Complaint, as though fully set forth herein.

18 89. Panasonic and SD-3C entered into a continuing contract, combination,  
 19 and/or conspiracy with the other members of the SD Group to unreasonably restrain trade and  
 20 commerce in the market for Flash Memory Card Technology.

21 90. Panasonic, SanDisk and Toshiba were significant horizontal competitors in  
 22 the Flash Memory Card Technology market. Prior to their agreement, the three companies  
 23 developed competing flash memory card technologies and reached independent decisions on  
 24 whether and at what price to license those technologies to other industry participants. Following  
 25 their independent business judgment, each company supported open standard-setting initiatives  
 26 as a means of encouraging industry adoption of the flash memory card technologies they had  
 27 developed.

28 91. In or around August 1999, Panasonic agreed with SanDisk and Toshiba to

1 limit competition with each other in the Flash Memory Card Technology market, to eliminate  
2 their separate flash card products, and to collaborate for the purpose of developing a secure  
3 version of the MultiMediaCard, to be known as the SD Card. To this end, Panasonic, the other  
4 members of the SD Group and SD-3C agreed to license their SD Card technologies exclusively  
5 through SD-3C and to do so at a single price. These agreements to restrain competition are  
6 ongoing and continuing.

7 92. Panasonic's agreement with the other SD Group members and SD-3C has  
8 caused anticompetitive effects in the Flash Memory Card Technology market. Panasonic,  
9 SanDisk and Toshiba deliberately chose to jointly develop the SD Card outside the pre-existing  
10 open standard-setting framework for MultiMediaCard specifications in order to manipulate and  
11 control the associated technology. As a result, Panasonic, SanDisk and Toshiba are able, with  
12 SD-3C, to charge other industry participants supracompetitive royalties for flash memory card  
13 technology.

14 93. The anticompetitive effects of the agreement between Panasonic, SD-3C  
15 and the other members of the SD Group are not offset by any countervailing benefits. Absent  
16 the agreement between the members of the SD Group, other industry participants were ready  
17 and willing to develop a flash memory card with substantially the same functionality of an SD  
18 Card. On information and belief, the agreement among Panasonic, SanDisk and Toshiba to  
19 jointly develop and jointly license flash memory card technology has not cleared blocking  
20 patent positions held by those companies. Rather, Panasonic has conspired with SanDisk and  
21 Toshiba to develop an SD Card specification that arbitrarily requires other manufacturers to  
22 practice patent rights owned by SD Group members and that would not otherwise be essential to  
23 implement the core functionality of an SD Card. Panasonic and SD-3C have further conspired  
24 with SanDisk and Toshiba to withhold comprehensive information on the essential patent rights  
25 covering SD Cards held by the SD Group that is necessary to permit licensees to assess the  
26 value of the rights conveyed by the SD Card License.

27 94. The single, pooled license offered by SD-3C does not enhance licensing  
28 efficiency by eliminating the need for multiple licenses. On information and belief, the key

1 patent rights covering flash memory used in SD Memory Cards are claimed by the SD Group  
2 members. By its terms, however, the SD Card License excludes these rights, thereby requiring  
3 that companies that wish to manufacture SD Cards to seek separate licenses for flash memory  
4 technology from each of Panasonic, SanDisk and Toshiba.

5 95. The unreasonable restraint of trade created by Defendants' agreement, and  
6 the effects thereof, continue. As a result of Defendants' agreement and acts in furtherance  
7 thereof, Samsung has suffered and will continue to suffer irreparable injury to its business and  
8 property.

9 96. An actual, justiciable controversy appropriate for damages and declaratory  
10 relief exists among the parties.

11 **CLAIM II**  
12 **Agreement in Restraint of Trade in Violation of Section 1 of the Sherman Act**  
13 **against Panasonic**  
14 **(in the Flash Memory Card Market)**

15 97. Plaintiff hereby incorporates by reference Paragraphs 1 through 96 of this  
16 Complaint, as though fully set forth herein.

17 98. Panasonic, SanDisk and Toshiba entered into a continuing contract,  
18 combination, agreement, and/or conspiracy to unreasonably restrain trade and commerce in the  
Flash Memory Card market.

19 99. Panasonic has combined with SanDisk and Toshiba in the SD Group for  
20 the purpose of establishing the SD Card as the dominant flash memory card format. Pursuant to  
21 this agreement, Panasonic, SanDisk and Toshiba have acted to suppress competition for the SD  
22 Card from other types of flash memory card. At least one SD Group member has acted in  
23 violation of its MMCA obligations to impede the release of new MultiMediaCard formats that  
24 would compete with SD Cards. On information and belief, this conduct is known to and  
25 approved of by the other SD Group members. In addition, Panasonic and Toshiba have  
26 discontinued sales of SmartMedia and Mega Storage cards respectively, each of which  
27 competed with SD Cards. These agreements to restrain competition are ongoing and  
28 continuing.

100. For the reasons set forth above, including in paragraphs 93-94, the anticompetitive effects of the agreement between Panasonic, SD-3C and the other members of the SD Group are not offset by any countervailing benefits.

101. The unreasonable restraint of trade created by Defendants' agreement, and the effects thereof, continue. As a result of Defendants' agreement and acts in furtherance thereof, Samsung has suffered and will continue to suffer irreparable injury to its business and property.

102. An actual, justiciable controversy appropriate for damages and declaratory relief exists among the parties.

**CLAIM III**  
**Agreement in Restraint of Trade in Violation of Section 1 of the Sherman Act**  
**against Panasonic and SD-3C LLC**  
**(in the SD Card Technology Market)**

103. Plaintiff hereby incorporates by reference Paragraphs 1 through 102 of this Complaint, as though fully set forth herein.

104. Panasonic, SD-3C and the other members of the SD Group entered into a continuing contract, combination, agreement, and/or conspiracy to unreasonably restrain trade and commerce in the SD Card Technology market.

105. Panasonic conspired with SanDisk and Toshiba to manipulate the SD Card Specification by arbitrarily requiring the use of patent rights owned by SD Group members to implement non-central features of the card. By this means, the SD Group has put itself in a position to demand supracompetitive royalties for the rights of SD Group members deemed essential for implementation of the Specification, and has agreed on a single price that all three SD Group members will charge for their technology related to SD Cards. By the same means, the SD Group has foreclosed competition from alternative technologies that, absent the SD Group's manipulation of the SD Specification, could be used to implement aspects of that Specification. In addition, Panasonic and SD-3C have agreed with the other members of the SD Group to include in the SD Card License a discriminatory grantback provision that has the purpose and effect of discouraging licensees from developing SD Card technologies that might

1 compete with the technologies owned by SD Group members. These agreements to restrain  
2 competition are ongoing and continuing.

3 106. For the reasons set forth above, including in paragraphs 93-94, the  
4 anticompetitive effects of the agreement between Panasonic, SD-3C and the other members of  
5 the SD Group are not offset by any countervailing benefits.

6 107. The unreasonable restraint of trade created by Defendants' agreement, and  
7 the effects thereof, continue. As a result of Defendants' agreement and acts in furtherance  
8 thereof, Samsung has suffered and will continue to suffer irreparable injury to its business and  
9 property.

10 108. An actual, justiciable controversy appropriate for damages and declaratory  
11 relief exists among the parties.

12

**CLAIM IV**  
**Agreement in Restraint of Trade in Violation of Section 1 of the Sherman**  
**Act against Panasonic and SD-3C LLC**  
**(in the SD Card Market)**

13

14 109. Plaintiff hereby incorporates by reference Paragraphs 1 through 108 of this  
15 Complaint, as though fully set forth herein.

16 110. Panasonic, SD-3C and the other members of the SD Group entered into a  
17 continuing contract, combination, agreement, and/or conspiracy to unreasonably restrain trade  
18 and commerce in the market for SD Cards.

19 111. By agreeing to license their SD Card technologies exclusively through a  
20 joint license and at a single price, Panasonic, the other members of the SD Group and SD-3C  
21 have raised the costs of other manufacturers of SD Cards, thereby reducing competition in the  
22 SD Card market. The SD Card License requires licensees to pay a royalty of 6 percent on net  
23 sales of all SD Cards. On information and belief, however, the members of the SD Group have  
24 agreed to cross-license their respective SD Card technologies to each other on a royalty-free  
25 basis. The discriminatory royalty required by the SD Card License insulates SD Group  
26 members from competition in the SD Card market by giving them a permanent cost advantage  
27 over rival manufacturers. The adverse effect of this cost advantage on competition in the SD  
28

1 Card market is exacerbated by the additional royalties that SD Group members separately  
2 demand from competitors for licenses to their flash memory patents. As a result of their  
3 strategy of raising the costs of rival manufacturers, the SD Group members have been able to  
4 establish a dominant position in the SD Card market. These agreements to restrain competition  
5 are ongoing and continuing.

6 112. For the reasons set forth above, including in paragraphs 93-94, the  
7 anticompetitive effects of the agreement between Panasonic, SD-3C and the other members of  
8 the SD Group are not offset by any countervailing benefits.

9                   113. The unreasonable restraint of trade created by Defendants' agreement, and  
10 the effects thereof, continue. As a result of Defendants' agreement and acts in furtherance  
11 thereof, Samsung has suffered and will continue to suffer irreparable injury to its business and  
12 property.

13                   114. An actual, justiciable controversy appropriate for damages and declaratory  
14 relief exists among the parties.

**CLAIM V**  
**Monopolization in Violation of Section 2 of the Sherman Act**  
**against SD-3C LLC**  
**(SD Card Technology Market)**

20 116. SD-3C holds monopoly power in the market for SD Card Technology.  
21 SD-3C licenses substantially all of the purportedly essential patent claims covering SD Cards  
22 under the Specification developed by the SD Group. On information and belief, other members  
23 of the SDA have not identified any patent rights owned by them that are essential for  
24 manufacture of SD Cards under the Specification.

25                   117. SD-3C engaged in exclusionary conduct in order to acquire and maintain  
26 this monopoly power. It has collaborated in the manipulation of the Specification by the SD  
27 Group, by representing patent rights owned by SD Group members as essential for  
28 implementation of the Specification and collecting royalties on that basis. It has failed to

1 disclose fully all the patents owned by SD Group members that the SD Group and SD-3C claim  
2 to be essential for implementation of the Specification. It has coerced industry participants into  
3 taking an SD Card License that incorporates a discriminatory grant-back provision, requiring  
4 licensees to give SD Group members royalty-free access to any essential patent claims the  
5 licensees may themselves develop covering SD Cards. This grant-back provision has the  
6 purpose and effect of depriving competitors of the incentive to develop competing SD Card  
7 technologies.

8 118. Defendants' unlawful monopoly in the SD Card Technology market and  
9 the effects thereof continue.

10 119. An actual, justiciable controversy appropriate for damages and declaratory  
11 relief exists among the parties.

12 **CLAIM VI**  
13 **Conspiracy to Monopolize in Violation of Section 2 of the Sherman Act**  
14 **against Panasonic and SD-3C LLC**  
**(SD Card Technology Market)**

15 120. Plaintiff hereby incorporates by reference Paragraphs 1 through 119 of this  
16 Complaint, as though fully set forth herein.

17 121. Panasonic and SD-3C conspired with the other members of the SD Group  
18 unlawfully to acquire monopoly power in the market for SD Card Technology, in violation of  
19 Section 2 of the Sherman Act, 15 U.S.C. § 2. Defendants entered into this conspiracy with the  
20 specific intent of obtaining by unlawful means a monopoly in this market.

21 122. Defendants have each committed one or more overt acts in furtherance of  
22 the conspiracy to monopolize the SD Card Technology market. Panasonic has joined with  
23 SanDisk and Toshiba to exclude and disadvantage rivals by, among other things, (1) agreeing on  
24 a single product design and ceasing the development and sale of their competing flash memory  
25 card formats; (2) manipulating the SD Specification to arbitrarily require the use of their own  
26 patents and foreclose other potential competing formats; (3) agreeing to license their respective  
27 patent rights related to SD Cards exclusively through SD-3C and the SD Card License; (4)  
28 requiring users of SD Card Technology, other than themselves, to pay a supracompetitive

1 royalty under the SD Card License; and (5) imposing on licensees a discriminatory grantback  
 2 provision that discourages the development of competing SD Card technologies. SD-3C has  
 3 enforced the SD Group's anticompetitive licensing scheme, including its unequal licensing and  
 4 grant-back provisions, in furtherance of the objectives of the conspiracy .

5 123. Panasonic and the SD Group's unlawful conspiracy to monopolize and the  
 6 effects thereof continue.

7 124. An actual, justiciable controversy appropriate for damages and declaratory  
 8 relief exists among the parties.

9

10 **CLAIM VII**  
**Declaratory Judgment of Unenforceability for Patent Misuse**  
**by Panasonic and SD-3C LLC**

11

12 125. Plaintiff hereby incorporates by reference Paragraphs 1 through 124 of this  
 13 Complaint, as though fully set forth herein.

14 126. By its terms, the SD Card License offered by SD-3C on behalf of  
 15 Panasonic and the other SD Group members does not grant rights to the flash memory  
 16 technology needed to manufacture an SD Memory Card.

17 127. The SD Card License requires the payment of royalties calculated as a  
 18 percentage of the total value of the SD Card, including the memory.

19 128. SD-3C offered the SD Card License to Samsung as a non-negotiable  
 20 proposal, and used the leverage of its purported patent rights to coerce Samsung into accepting  
 21 the license terms.

22 129. The price of SD Cards varies in proportion to the amount of flash memory  
 23 they contain.

24 130. The SD Card License accordingly extracts a royalty based on non-licensed  
 25 goods. A patentholder engages in patent misuse when it charges royalty on an unlicensed good  
 26 or the unlicensed component of an a good. Accordingly, Panasonic's conduct constitutes  
 27 unlawful patent misuse and renders the patents covered by the SD Card License unenforceable.

28 131. This patent misuse, and the effects thereof, continue.

132. An actual, justiciable controversy appropriate for damages and declaratory relief exists among the parties.

**CLAIM VIII**  
**Unfair Competition Under California Business and Professions Code Section 17200 et seq.**  
**against Panasonic**

133. Plaintiff hereby incorporates by reference Paragraphs 1 through 132 of this Complaint, as though fully set forth herein.

134. The acts and conduct of Panasonic as alleged above in this Complaint constitute methods of unlawful, unfair, and/or fraudulent business practice as defined by California Business & Professions Code Section 17200.

135. Panasonic's acts and practices, as described above, amount to an unlawful business act or practice under Section 17200 in at least the following respects. Panasonic (1) entered into a continuing contract, combination, and/or conspiracy to unreasonably restrain trade and commerce; (2) manipulated the standard-setting process to raise costs to rivals and significantly threaten or harm competition; (3) required non-negotiable and discriminatory grantback requirements on SD Card licensees; and (4) thereby foreclosed the development of other flash memory card technologies.

**CLAIM IX**  
**Violation of the Cartwright Act,**  
**California Business and Professions Code Section 16700 et seq.**  
**against Panasonic**

136. Plaintiff hereby incorporates by reference Paragraphs 1 through 135 of this Complaint, as though fully set forth herein.

137. Panasonic has, through the acts and conduct described herein, entered into an unlawful trust as defined by California Business & Professions Code Sections 16720 and 16726.

138. Panasonic and the SD Group member entered into a combination with the purpose of restraining competition by, among other things: (1) limiting or reducing the production of and/or increasing the price of flash memory card technology, flash memory cards, SD Card technology and SD Cards; (2) preventing competition in the sale of flash memory card

1 technology, flash memory cards, and SD Cards; and (3) fixing the price of SD Card technology;

2 139. As a result of Panasonic's actions, trade and commerce have been  
3 restrained in the following markets: (1) the Flash Memory Card Technology Market; (2) the  
4 Flash Memory Card market; (3) the SD Card Technology Market; and (4) the SD Card Market.

5 140. Plaintiff has been harmed by Panasonic's unlawful conduct, by being  
6 required to pay higher royalties for the production of SD Cards than it would have in a free and  
7 competitive market, and through foreclosure of its ability to sell SD Cards and components to its  
8 customers.

9 141. Such effects are continuing and will continue until injunctive relief is  
10 granted.

#### 11 **PRAAYER FOR RELIEF**

12 WHEREFORE, Plaintiff seeks the following relief:

13 1. Pursuant to 28 U.S.C. § 2201, a declaration that Panasonic and SD-3C have  
14 unreasonably restrained trade in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1;

15 2. Pursuant to 28 U.S.C. § 2201, a declaration that the SD Card License is an  
16 unreasonable restraint of trade that violates Section 1 of the Sherman Act, 15 U.S.C. § 1;

17 3. Pursuant to 28 U.S.C. § 2201, a declaration that SD-3C has monopolized the  
18 market for SD Card Technology in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2;

19 4. Pursuant to 28 U.S.C. § 2201, a declaration that Panasonic and SD-3C have  
20 engaged in a conspiracy to monopolize the Flash Memory Card Technology market and the SD  
21 Card Technology market in violation of Section 2 of the Sherman Act, 15 U.S.C. § 2;

22 5. Pursuant to 28 U.S.C. § 2201, a declaration that the royalty provision of the  
23 SD Card License constitutes patent misuse and that all patents covered by the license are  
24 unenforceable;

25 6. Restitution of all sums paid as royalties by Samsung under the SD Card  
26 License since the execution thereof;

27 7. Pursuant to 28 U.S.C. § 2202, such further relief as may be necessary or  
28 proper based upon the Court's declaratory judgment;

1                   8. Pursuant to 15 U.S.C. § 15, trebled damages resulting from Panasonic's and  
2 SD-3C's violations of the Sherman Act;

3                   9. Injunctive relief preventing and restraining Defendants from collecting  
4 royalties on SD Cards manufactured by third parties;

5                   10. Pursuant to California Business & Professions Code Sections 16750 and  
6 17203, restitution of royalties paid by Samsung under the SD Card License since the date of  
7 execution and an injunction to prevent Panasonic's continued acts of unfair competition;

8                   11. Pre-judgment and post-judgment interest at the maximum legal rate;

9                   12. Plaintiff's costs, expenses, and reasonable attorneys' fees in bringing this  
10 action; and

11                   13. Such other relief as the Court may deem just and proper.

13                   Dated: July 15, 2010

COVINGTON & BURLING LLP

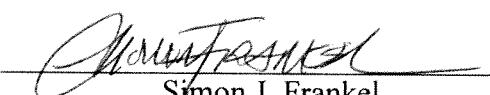
15                   By:   
16                   Simon J. Frankel  
17                   Attorneys for Plaintiff  
18                   SAMSUNG ELECTRONICS CO., LTD.

**DEMAND FOR JURY TRIAL**

19                   Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Plaintiff demands a trial  
20 by jury.

22                   Dated: July 15, 2010

COVINGTON & BURLING LLP

24                   By:   
25                   Simon J. Frankel  
26                   Attorneys for Plaintiff  
27                   SAMSUNG ELECTRONICS CO., LTD.